



Governor

*Lori F. Kaplan*  
Commissioner

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

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[www.state.in.us/idem](http://www.state.in.us/idem)

## FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

**H. B. Fuller Company  
24087 County Road 6 East  
Elkhart, Indiana 46514**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F039-15349-00030	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 6, 2002

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary adhesive manufacturing plant.

Authorized individual:	Vice President
Source Address:	24087 County Road 6 East, Elkhart, Indiana 46514
Mailing Address:	24087 County Road 6 East, Elkhart, Indiana 46514
SIC Code:	2891
Source Location Status:	Elkhart
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP)
	Minor Source, under PSD;
	Minor Source, Section 112 of the Clean Air Act
	Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) Thirteen (13) mixers with baghouses, including the follows:
- (1) Three (3) vertical mixers, identified as M1, M2 and M5, with maximum throughput rates of 3000, 1800, and 1300 pounds per hour of total mixing materials, installed in 1985, each using a baghouse for control, and exhausting at stacks SVDC-06, SVDC-07, and SVDC-10, respectively.
  - (2) Two (2) vertical mixers, identified as M3 and M4, with maximum throughput rates of 2860 and 370 pounds per hour of total mixing materials, installed in 1994, each using a baghouse for control, and exhausting at stacks SVDC-08 and SVDC-09, respectively.
  - (3) One (1) Baker-Perkins mixer, identified as M6, with a maximum throughput rate of 800 pounds per hour of total mixing materials, installed before 1980, using a baghouse for control, and exhausting at stack SVDC-11.
  - (4) One (1) Myers mixer, identified as M7, installed in 1998, with a maximum throughput rate of 400 pounds per hour of total mixing materials, using a baghouse for control, and exhausting at stack SVDC-12.
  - (5) One (1) J. H. Day Co mixer, identified as M9, with a maximum throughput rate of 670 pounds per hour of total mixing materials, installed in 1993, using a baghouse for control, and exhausting at stack SVDC-13.

- (6) One (1) Readco mixer, identified as M10, with a maximum process rate of 137 pounds per hour of total mixing materials, installed in 1995, using a baghouse for control, and exhausting at stack SVDC-14.
- (7) One (1) Lightnin mixer, identified as M11, with a maximum throughput rate of 540 pounds per hour of total mixing materials, installed in 1992, using a baghouse for control.
- (8) One (1) Joyce-Gridland mixer, identified as M12, with a maximum throughput rate of 450 pounds per hour of total mixing materials, installed in 1991, using a baghouse for control.
- (9) One (1) mixer, identified as M20, with a maximum throughput rate of 400 pounds per hour of total mixing materials, using a baghouse for control.
- (10) One (1) vertical sweep mixer, identified as M21, with a maximum throughput rate of 900 pounds per hour of total mixing materials, installed in 1998, using a baghouse for control.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
  - (1) Three (3) natural gas space heaters, each with a rate of 0.15 million Btu per hour.
  - (2) Eight (8) natural gas space heaters, each with a rate of 0.1 million Btu per hour.
  - (3) One (1) natural gas steam boiler, with a rate of 0.875 million Btu per hour.
  - (4) Two (2) natural gas steam boilers, each with a rate of 0.275 million Btu per hour.
  - (5) Lab furnace and drying ovens.
- (b) Other emission units, not regulated by a NESHAP, with PM<sub>10</sub> and SO<sub>2</sub> emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:
  - (1) One (1) Lacolene storage tank, identified as ST06, with a maximum capacity of 10,000 gallons, installed before 1980, and exhausting at stack SVST-06;
  - (2) Two (2) 60/40 storage tanks, identified as ST08 and ST12, with maximum capacities of 8,500 and 10,500 gallons, installed before 1980, and exhausting at stacks SVST-08 and SVST-12, respectively;
  - (3) One (1) Toluene storage tank, identified as ST11, with a maximum capacity of 12,000 gallons, installed before 1980, and exhausting at stack SVST-11.

- (4) Seven (7) extruder lines;
- (5) One (1) tobacco cloth coater;
- (6) One (1) compactor;
- (7) Four (4) tubing lines;
- (8) Forklifts;
- (9) Two (2) lab hoods;
- (10) One (1) silo;
- (11) One (1) conveyor; and
- (12) One (1) hopper.

**A.4 FESOP Applicability [326 IAC 2-8-2]**

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This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

**A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

## **SECTION B                      GENERAL CONDITIONS**

### **B.1        Permit No Defense [IC 13]**

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Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### **B.2        Definitions [326 IAC 2-8-1]**

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

### **B.3        Permit Term [326 IAC 2-8-4(2)]**

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This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### **B.4        Enforceability [326 IAC 2-8-6]**

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Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### **B.5        Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### **B.6        Severability [326 IAC 2-8-4(4)]**

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The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### **B.7        Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

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This permit does not convey any property rights of any sort, or any exclusive privilege.

### **B.8        Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]**

#### **[326 IAC 2-8-5(a)(4)]**

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- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also



furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

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IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

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- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

**B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and Northern Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)  
or,  
Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967  
Telephone No.: 1-800-753-8519 or,  
Telephone No.: 219-245-4870  
Facsimile No.: 219-245-4877

Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

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(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
- (1) A timely renewal application is one that is:
- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]  
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as needed to process the application.

**B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015
- Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15]**

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- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

**B.20 Permit Revision Requirement [326 IAC 2-8-11.1]**

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).



- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source
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### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred and fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]**

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The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

**C.5 Fugitive Dust Emissions [326 IAC 6-4]**

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

**C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]**

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Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

**C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The

notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.8 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.9 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.10 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

**C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

**C.12 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]**

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (b) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**C.14 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]**

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:

- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
  - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
  - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]  
[326 IAC 2-8-5]**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.16 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]**

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- (a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8). The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

**C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

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- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.



**C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

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- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

**Stratospheric Ozone Protection**

**C.19 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) Thirteen (13) mixers with baghouses, including the follows:
- (1) Three (3) vertical mixers, identified as M1, M2 and M5, with maximum throughput rates of 3000, 1800, and 1300 pounds per hour of total mixing materials, installed in 1985, each using a baghouse for control, and exhausting at stacks SVDC-06, SVDC-07, and SVDC-10, respectively.
  - (2) Two (2) vertical mixers, identified as M3 and M4, with maximum throughput rates of 2860 and 370 pounds per hour of total mixing materials, installed in 1994, each using a baghouse for control, and exhausting at stacks SVDC-08 and SVDC-09, respectively.
  - (3) One (1) Baker-Perkins mixer, identified as M6, with a maximum throughput rate of 800 pounds per hour of total mixing materials, installed before 1980, using a baghouse for control, and exhausting at stack SVDC-11.
  - (4) One (1) Myers mixer, identified as M7, installed in 1998, with a maximum throughput rate of 400 pounds per hour of total mixing materials, using a baghouse for control, and exhausting at stack SVDC-12.
  - (5) One (1) J. H. Day Co mixer, identified as M9, with a maximum throughput rate of 670 pounds per hour of total mixing materials, installed in 1993, using a baghouse for control, and exhausting at stack SVDC-13.
  - (6) One (1) Readco mixer, identified as M10, with a maximum process rate of 137 pounds per hour of total mixing materials, installed in 1995, using a baghouse for control, and exhausting at stack SVDC-14.
  - (7) One (1) Lightnin mixer, identified as M11, with a maximum throughput rate of 540 pounds per hour of total mixing materials, installed in 1992, using a baghouse for control.
  - (8) One (1) Joyce-Gridland mixer, identified as M12, with a maximum throughput rate of 450 pounds per hour of total mixing materials, installed in 1991, using a baghouse for control.
  - (9) One (1) mixer, identified as M20, with a maximum throughput rate of 400 pounds per hour of total mixing materials, using a baghouse for control.
  - (10) One (1) vertical sweep mixer, identified as M21, with a maximum throughput rate of 900 pounds per hour of total mixing materials, installed in 1998, using a baghouse for control.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

### **D.1.1 PM10 Emissions [326 IAC 2-8-4]**

---

The total dry material input to all the mixers shall not exceed 31,500 tons per twelve (12) consecutive month period with compliance determined at the end of each month, which is equal to the maximum total dry material usage at this facility. Based on the PM10 emission factor of 1% by weight and 99% control efficiencies for the baghouses, this is equivalent to 3.15 tons per year of PM10 Emissions. Combined with the PM10 emissions from the insignificant combustion units, the PM10 emissions from the entire source are limited to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 are not applicable.

### **D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 2-8-4] [326 IAC 8-1-6]**

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- (a) Pursuant to 326 IAC 2-8-4 (FESOP), The total VOC input to all the mixers shall not exceed 6,400 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Based on the VOC emission factor of 1.5% by weight, this is equivalent to 96 tons per year of VOC Emissions. Combined with the VOC emissions from the storage tanks and the insignificant combustion units, the VOC emissions from the entire source are limited to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 are not applicable.
- (b) Pursuant to FESOP 039-5868-00030, issued on December 12, 1996, the total VOC input to each of mixers M1, M2 and M3 shall not exceed 1466.7 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Based on the VOC emission factor of 1.5% by weight, this is equivalent to VOC emissions of 22 tons per twelve (12) consecutive month period for each mixer. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

### **D.1.3 Hazardous Air Pollutants [326 IAC 2-8-4]**

---

Pursuant to 326 IAC 2-8-4 (FESOP) and based on the VOC emission factor of 1.5%:

- (1) Any single HAP delivered to all the mixers shall not exceed 600 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This is equivalent to 9 tons per year of a single HAPs emission. Combined with the HAPs emissions from the storage tanks and the insignificant combustion units, the emissions for a single HAP from the entire source are limited to less than 10 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (2) The total HAPs delivered to all the mixers shall not exceed 1,600 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This is equivalent to 24 tons per year of total HAP emissions. Combined with the HAPs emissions from the storage tanks and the insignificant combustion units, the total HAPs emissions from the entire source are limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Therefore, the requirements of 326 IAC 2-7 are not applicable.

### **D.1.4 Particulate Matter (PM) [326 IAC 6-3-2]**

---

The allowable particulate matter (PM) emission rate from each mixer stack shall be limited to the pounds per hour limitation calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

The equivalent PM limit for each mixer is listed in the table below:

Mixer ID	Throughput Rate (lbs/hr)	Allowable PM Limit (lbs/hr)
M1	3,000	5.38
M2	1,800	3.82
M3	2,860	5.21
M4	370	1.32
M5	1,300	3.07
M6	800	2.22
M7	400	1.39
M9	670	1.97
M10	137	0.68
M11	540	1.71
M12	450	1.51
M20	400	1.39
M21	900	2.40

**D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

**Compliance Determination Requirements**

**D.1.6 PM10 Emissions**

Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month based on the total weight of the dry materials input to all the mixers for the most recent twelve (12) month period.

**D.1.7 VOC and HAP Emissions**

- (a) Compliance with Conditions D.1.2 and D.1.3 shall be demonstrated within 30 days of the end of each month based on the total VOC and HAP usages for the most recent twelve (12) month period.
- (b) Compliance with HAPs and VOC usage limitations contained in Conditions D.1.2 and D.1.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the manufacturers.

**D.1.8 PM Emissions**

To comply with Condition D.1.1 Condition D.1.4, the baghouses equipped with the mixers shall be in operation all times when the mixers are in operation.



## **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

### **D.1.9 Visible Emissions Notations**

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- (a) Visible emission notations of the stack exhausts for the mixers shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

### **D.1.10 Parametric Monitoring**

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The Permittee shall record the total static pressure drop across each baghouse used in conjunction with the mixing operation, at least once per shift when the mixers are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 2.05 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan-Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

### **D.1.11 Baghouse Inspections**

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An inspection shall be performed within the last month of each calendar quarter of all bags controlling the mixers.

### **D.1.12 Broken or Failed Bag Detection**

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In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take

response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

##### **D.1.13 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.1, the Permittee shall maintain monthly records in the total weight of dry materials input to all the mixers.
- (b) To document compliance with Conditions D.1.2 and D.1.3, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAPs and VOC usage limits established in Conditions D.1.2 and D.1.3.
  - (1) The amount, the HAP content, and the VOC content of each solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;
  - (2) The cleanup solvent usage for each month;
  - (3) The total HAP and VOC usage each month; and
  - (4) The weight of HAPs and VOC usage for each compliance period.
  - (5) The VOC and HAP contents in the final products.
- (c) To document compliance with Condition D.1.9, the Permittee shall maintain records of visible emission notations of the mixer stack exhausts.
- (d) To document compliance with Condition D.1.10, the Permittee shall maintain once per shift records of the Inlet and outlet differential static pressure for the baghouses during normal operation.
- (e) To document compliance with Condition D.1.11, the Permittee shall maintain records of the results of the inspections required under Condition D.1.11.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

##### **D.1.14 Reporting Requirements**

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A quarterly summary of the information to document compliance with Conditions D.1.1, D.1.2, and D.1.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)] Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
  - (1) One (1) natural gas steam boiler, with a rate of 0.875 million Btu per hour.
  - (2) Two (2) natural gas steam boilers, each with a rate of 0.275 million Btu per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 Particulate Matter (PM) [326 IAC 6-2-3]

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Pursuant to 326 IAC 6-2-3 (e) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from any facilities used for indirect heating purposes which have 250 MMBtu/hr heat input or less and began operation after June 8, 1972, shall in no case exceed 0.6 pounds of particulate matter per million British thermal units heat input.



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: H. B. Fuller Company  
Source Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
Mailing Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
FESOP No.: F039-15349-00030

**This certification shall be included when submitting monitoring, testing reports/results  
or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
P.O. Box 6015  
100 North Senate Avenue  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: H.B. Fuller Company  
Source Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
Mailing Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
FESOP No.: F039-15349-00030

**This form consists of 2 pages**

**Page 1 of 2**

**9** This is an emergency as defined in 326 IAC 2-7-1(12)  
CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: H.B. Fuller Company  
Source Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
Mailing Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
FESOP No.: F039-15349-00030  
Facility: All Mixers  
Parameter: Total dry material input  
Limit: Less than 31,500 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: H.B. Fuller Company  
Source Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
Mailing Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
FESOP No.: F039-15349-00030  
Facility: All Mixers  
Parameter: VOC input  
Limit: Less than 6,400 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: H.B. Fuller Company  
Source Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
Mailing Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
FESOP No.: F039-15349-00030  
Facility: Mixer M1  
Parameter: VOC input  
Limit: Less than 1,466.7 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: H.B. Fuller Company  
Source Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
Mailing Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
FESOP No.: F039-15349-00030  
Facility: Mixer M2  
Parameter: VOC input  
Limit: Less than 1,466.7 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: H.B. Fuller Company  
Source Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
Mailing Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
FESOP No.: F039-15349-00030  
Facility: Mixer M3  
Parameter: VOC input  
Limit: Less than 1,466.7 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: H.B. Fuller Company  
Source Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
Mailing Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
FESOP No.: F039-15349-00030  
Facility: All Mixers  
Parameter: A single HAP input  
Limit: Less than 600 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: H.B. Fuller Company  
Source Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
Mailing Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
FESOP No.: F039-15349-00030  
Facility: All Mixers  
Parameter: Total HAPs input  
Limit: Less than 1,600 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: H.B. Fuller Company  
Source Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
Mailing Address: 24087 County Road 6 East, Elkhart, Indiana 46514  
FESOP No.: F039-15349-00030

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**September 6, 2002**

**Indiana Department of Environmental Management  
Office of Air Quality**

**Addendum to the Technical Support Document  
for Federally Enforceable State Operating Permit (FESOP) Renewal**

Source Name: H.B. Fuller Company  
Source Location: 24087 County Road 6 East, Elkhart, Indiana 46514  
County: Elkhart  
SIC Code: 2891  
Operation Permit No.: F039-15349-00030  
Permit Reviewer: ERG/YC

On July 27, 2002, the Office of Air Quality (OAQ) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that H.B. Fuller Company had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate an adhesive manufacturing plant with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAQ has made the following corrections to Condition D.1.2 (bolded language has been added, the language with strike-out has been deleted).

**D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 2-8-4] [326 IAC 8-1-6]**

- 
- (a) Pursuant to 326 IAC 2-8-4 (FESOP), The total VOC input to all the mixers shall not exceed 6,400 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Based on the VOC emission factor of 1.5% by ~~weight~~**weight**, this is equivalent to 96 tons per year of VOC Emissions. Combined with the VOC emissions from the storage tanks and the insignificant combustion units, the VOC emissions from the entire source are limited to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 are not applicable.
- (b) Pursuant to FESOP 039-5868-00030, issued on December 12, 1996, the total VOC input to each of mixers M1, M2 and M3 shall not exceed 1466.7 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Based on the VOC emission factor of 1.5% by ~~weight~~**weight**, this is equivalent to VOC emissions of 22 tons per twelve (12) consecutive month period for each mixer. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

**September 6, 2002**

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for a Federally Enforceable State  
Operating Permit (FESOP) Renewal**

**Source Background and Description**

Source Name: H.B. Fuller Company  
Source Location: 24087 County Road 6 East, Elkhart, Indiana 46514  
County: Elkhart County  
SIC Code: 2891  
Operation Permit No.: F039-15349-00030  
Permit Reviewer: ERG/YC

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from H.B. Fuller Company relating to the operation of an adhesive manufacturing plant. H.B. Fuller Company was issued FESOP (039-5868-00030) on December 6, 1996.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) Thirteen (13) mixers with baghouses, including the follows:
- (1) Three (3) vertical mixers, identified as M1, M2 and M5, with maximum throughput rates of 3000, 1800, and 1300 pounds per hour of total mixing materials, installed in 1985, each using a baghouse for control, and exhausting at stacks SVDC-06, SVDC-07, and SVDC-10, respectively.
  - (2) Two (2) vertical mixers, identified as M3 and M4, with maximum throughput rates of 2860 and 370 pounds per hour of total mixing materials, installed in 1994, each using a baghouse for control, and exhausting at stacks SVDC-08 and SVDC-09, respectively.
  - (3) One (1) Baker-Perkins mixer, identified as M6, with a maximum throughput rate of 800 pounds per hour of total mixing materials, installed before 1980, using a baghouse for control, and exhausting at stack SVDC-11.
  - (4) One (1) Myers mixer, identified as M7, installed in 1998, with a maximum throughput rate of 400 pounds per hour of total mixing materials, using a baghouse for control, and exhausting at stack SVDC-12.
  - (5) One (1) J. H. Day Co mixer, identified as M9, with a maximum throughput rate of 670 pounds per hour of total mixing materials, installed in 1993, using a baghouse for control, and exhausting at stack SVDC-13.

- (6) One (1) Readco mixer, identified as M10, with a maximum process rate of 137 pounds per hour of total mixing materials, installed in 1995, using a baghouse for control, and exhausting at stack SVDC-14.
- (7) One (1) Lightning mixer, identified as M11, with a maximum throughput rate of 540 pounds per hour of total mixing materials, installed in 1992, using a baghouse for control.
- (8) One (1) Joyce-Gridland mixer, identified as M12, with a maximum throughput rate of 450 pounds per hour of total mixing materials, installed in 1991, using a baghouse for control.
- (9) One (1) mixer, identified as M20, with a maximum throughput rate of 400 pounds per hour of total mixing materials, using a baghouse for control.
- (10) One (1) vertical sweep mixer, identified as M21, with a maximum throughput rate of 900 pounds per hour of total mixing materials, installed in 1998, using a baghouse for control.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

#### **New Emission Units and Pollution Control Equipment Receiving New Source Review Approval**

There are no new emission unit or pollutant control equipment being added during this review process.

#### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
  - (1) Three (3) natural gas space heaters, each with a rate of 0.15 million Btu per hour.
  - (2) Eight (8) natural gas space heaters, each with a rate of 0.1 million Btu per hour.
  - (3) One (1) natural gas steam boiler, with a rate of 0.875 million Btu per hour.
  - (4) Two (2) natural gas steam boilers, each with a rate of 0.275 million Btu per hour.
  - (5) Lab furnace and drying ovens.
- (b) Other emission units, not regulated by a NESHAP, with PM<sub>10</sub> and SO<sub>2</sub> emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) ton per year of any combination of HAPs:

- (1) One (1) Lacolene storage tank, identified as ST06, with a maximum capacity of 10,000 gallons, installed before 1980, and exhausting at stack SVST-06;
- (2) Two (2) 60/40 storage tanks, identified as ST08 and ST12, with maximum capacities of 8,500 and 10,500 gallons, installed before 1980, and exhausting at stacks SVST-08 and SVST-12, respectively;
- (3) One (1) Toluene storage tank, identified as ST11, with a maximum capacity of 12,000 gallons, installed before 1980, and exhausting at stack SVST-11.
- (4) Seven (7) extruder lines;
- (5) One (1) tobacco cloth coater;
- (6) One (1) compactor;
- (7) Four (4) tubing lines;
- (8) Forklifts;
- (9) Two (2) lab hoods;
- (10) One (1) silo;
- (11) One (1) conveyor; and
- (12) One (1) hopper.

### Existing Approvals

- (a) FESOP 039-5868-00030, issued on December 6, 1996:
- (b) Minor Permit Modification 039-8496-00030, issued on March 2, 1998.

All conditions from previous approvals were incorporated into this FESOP, except the following:

- (a) FESOP 039-5868-00030, issued on December 6, 1996:

#### Condition A.2

##### A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

- (1) Thirteen (13) mixers identified as M1-M11, M18, and M19 with baghouses that are integral to the operation of the mixer to control the particulate emissions.
- (2) Three (3) mixers identified as M12, M13 and M20 with no control equipment.
- (3) Four (4) storage tanks identified as 6, 8, 11, and 12.



- (4) One (1) removable solvent-based adhesive bath and dryer system, identified as CL1.

Changes to original conditions:

Based on FESOP renewal application, the baghouses equipped with the mixers are used to control the PM emissions from the mixers. Therefore, these baghouses are not considered as integral part of the mixers and are required to do the monitoring on the pressure drops across the baghouses to ensure the compliance with 326 IAC 2-8 (FESOP) and 326 IAC 6-3 (Process Operations).

The Permittee proposed to install the baghouses with mixers M12 and M20 before the issuance of this FESOP. The potential to emit of all criteria pollutants from these two mixers are less than the emission thresholds defined in 326 IAC 2-1.1-3(e)(1). Therefore, the installation of these two baghouses are exempt from the permitting requirement.

In addition, the Permittee requested to remove mixers M8, M13, M18, and M19 from this FESOP. The removable solvent-based adhesive bath and dryer system has not been installed yet and the source has no intention to install this unit before the issuance of this FESOP. Therefore, this adhesive bath and dryer system is removed from this FESOP.

- (b) FESOP 039-5868-00030, issued on December 6, 1996:

There is no PM10 emission limits for the mixers.

Changes to original conditions:

Since the baghouses are not considered as integral part of the mixers, the potential PM10 emissions from the entire source are greater than 100 tons per year. Pursuant to 326 IAC 2-8, the source shall limit the PM10 emissions to less than 100 tons per year. Conditions of limiting PM10 emissions from the mixers by limiting the total throughput rate of the dry mixing materials are added in this FESOP.

- (c) FESOP 039-5868-00030, issued on December 6, 1996:

Condition D.1.1 limits the solvent input to all the mixers to less than 5,518 tons per twelve (12) consecutive months.

Condition D.1.2 limits the toluene throughput delivered to all the mixers to less than 496.67 tons per twelve (12) consecutive months.

Changes to original conditions:

Since the "solvent-based adhesive bath and dryer system" is removed from this FESOP, the VOC and HAPs usage limits for the mixers have been adjusted in this FESOP (see the section of "State Rule Applicability - Mixers").

#### **Enforcement Issue**

- (a) IDEM is aware that the source did not apply for a FESOP renewal in a timely manner. Pursuant to 326 IAC 2-8-3 (h), the source shall submitted the FESOP renewal application nine months prior to the date that the current FESOP expires. The source's current FESOP expired December 6, 2001. The source submitted its application for renewal on December 27, 2001.

- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the operation permit rules.

### Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on December 27, 2001. Additional information was received on February 25, 2002, February 27, 2002, and April 9, 2002.

There was no notice of completeness letter mailed to the source.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 3).

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	314.7
PM-10	314.7
SO <sub>2</sub>	Negligible
VOC	236.8
CO	1.24
NO <sub>x</sub>	1.48

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Unrestricted Potential Emissions (tons/yr)
Toluene	54.19
Glycol Ethers	0.33
TOTAL	54.4

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC and PM10 are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Pursuant to 326 IAC 2-8, this source, otherwise required to obtain a Title V permit, has proposed to accept a permit with federally enforcement limits that restrict potential to emit

to below Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operation Permit (FESOP).

(d) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

**Potential to Emit After Issuance**

The source, issued a FESOP on December 6, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F039-5868-00030; issued on December 6, 1996).

Process/emission unit	Potential to Emit After Issuance (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
13 Mixers	Less than 3.15	Less than 3.15	-	Less than 96	-	-	Less than 9.0 for a single HAP and less than 24 for combination HAPs
* Storage Tanks (insignificant)	-	-	-	1.25	-	-	0.1
Insignificant Combustion	0.11	0.11	Negligible	0.08	1.24	1.48	Negligible
Total PTE After Issuance	Less than 3.3	Less than 3.3	Negligible	Less than 97.3	1.24	1.48	Less than 10 for a single HAP and less than 25 for combination HAPs

\* Potential Emissions from the storage tank are based upon estimated emissions in the Technical Support Document (TSD) of FESOP 039-5868-00030, issued on December 6, 1996.

**County Attainment Status**

The source is located in Elkhart County.

Pollutant	Status
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone.
- (b) Elkhart County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and CFR 52.21.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c-48c, Subpart Dc), because all the boilers at this source have maximum heat input capacities less than 10 MMBtu/hr.
- (c) None of the storage tanks at this source is used to store petroleum liquids and all of the storage tanks have capacities less than 40,000 gallons. Therefore, the New Source Performance Standards for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after June 11, 1973, and Prior to May 19, 1978 (40 CFR 60.110 - 113, Subpart K) are not applicable to these tanks.
- (d) None of the storage tanks at this source is used to store petroleum liquids and all of the storage tanks have capacities less than 40,000 gallons. Therefore, the New Source Performance Standards for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after May 19, 1978 (40 CFR 60.110a - 115a, Subpart Ka) are not applicable to these tanks.
- (e) All the tanks at this source were constructed before 1980. Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (40 CFR 60.110b - 117b, Subpart Kb) are not applicable to this source.
- (f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

### **State Rule Applicability - Entire Source**

#### **326 IAC 2-2 (Prevention of Significant Deterioration (PSD))**

The source was constructed before 1980 and modified in 1985, 1991, 1992, 1993, 1994, 1995, 1998, and 2002. The source is not 1 of 28 source categories defined in 326 IAC 2-2-1(p)(1) and has the potential to emit any regulated pollutant less than two hundred and fifty (250) tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 are not applicable.

#### **326 IAC 2-4.1 (New Sources of Hazardous Air Pollutants)**

The source was constructed prior to July 27, 1997. Therefore, the requirements of 326 IAC 2-4.1 are not applicable.

#### **326 IAC 2-8-4 (FESOP)**

The source has potential PM<sub>10</sub>, VOC and HAP emissions greater than the major source thresholds. However, the source has agreed to accept a permit with federally enforcement limits as follows:

- (a) The total dry material input to all the mixers shall be limited to 31,500 tons per twelve (12) consecutive month period with compliance determined at the end of each month, which is equal to the maximum total dry material usage at this facility. Based on the PM10 emission factor of 1% by weight and 99% control efficiencies for the baghouses, this is equivalent to 3.15 tons per year of PM10 Emissions ( 31,500 tons/yr x 1% x (1-99%) = 3.15 tons/yr). Combined with the PM10 emissions from the insignificant combustion units, the PM10 emissions from the entire source are limited to less than 100 tons per year.
- (b) The total VOC input to all the mixers shall be limited to 6,400 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Based on the VOC emission factor of 1.5%, this is equivalent to 96 tons per year of VOC Emissions ( 6,400 tons/yr x 1.5% = 96.0 tons/yr). Combined with the VOC emissions from the storage tanks and the insignificant combustion units, the VOC emissions from the entire source are limited to less than 100 tons per year.
- (c) Any single HAP input to all the mixers shall be limited to 600 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Based on the VOC emission factor of 1.5%, this is equivalent to 9 tons per year of a single HAPs emission ( 600 tons/yr x 1.5% = 9 tons/yr). Combined with the HAPs emissions from the storage tanks and the insignificant combustion units, the HAPs emissions from the entire source are limited to less than 10 tons/yr for a single HAP.
- (d) The total HAPs input to all the mixers shall be limited to 1,600 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Based on the VOC emission factor of 1.5%, this is equivalent to 24 tons per year of total HAP emissions. ( 1,600 tons/yr x 1.5% = 24 tons/yr). Combined with the HAPs emissions from the storage tanks and the insignificant combustion units, the HAPs emissions from the entire source are limited to less than 25 tons/yr for total HAPs.

Therefore, the requirements of 326 IAC 2-7 are not applicable.

326 IAC 8-6 (Organic Solvent Emission Limitations)

This source is located in Elkhart County and was constructed before January 1, 1980. However, the potential to emit of VOC from the entire source is limited to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 8-6 are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and is located in Elkhart County. Pursuant to this rule, the owner/operator of the source must submit an emission statement for the source. The statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9

or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### State Rule Applicability - Thirteen (13) Mixers

#### 326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

Pursuant to FESOP 039-5868-00030, issued on December 12, 1996, the VOC input to mixer M1, M2 and M3 is each limited to 1466.7 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Based on the VOC emission factor of 1.5%, this is equivalent to VOC emissions of 22 tons per twelve (12) consecutive month period for each mixer (1,466.7 ton/yr x 1.5% = 22 ton/yr). Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

#### 326 IAC 6-3-2 (Process Operations)

The allowable particulate matter (PM) emissions from each mixer stack shall be limited to the pounds per hour limitation calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The equivalent PM limit for each mixer is listed in the table below:

Mixer ID	Throughput Rate (lbs/hr)	Allowable PM Limit (lbs/hr)
M1	3,000	5.38
M2	1,800	3.82
M3	2,860	5.21
M4	370	1.32
M5	1,300	3.07
M6	800	2.22
M7	400	1.39
M9	670	1.97
M10	137	0.68
M11	540	1.71
M12	450	1.51
M20	400	1.39
M21	900	2.40

According to the emission calculations (see Appendix A), the potential to emit PM from each mixer (with a control of a baghouse at 99.0% efficiency) is less than the limit in the table above. Therefore, these mixers are in compliance with 326 IAC 6-3-2.

### State Rule Applicability - Insignificant Activities

#### 326 IAC 8-9-1 (Volatile Organic Liquid Storage Vessels)

This source is located in Elkhart County, Therefore, the requirements of 326 IAC 8-9 do not apply to the storage tanks at this source.

#### 326 IAC 6-2-4 (PM Emissions for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4(a), boilers constructed after September 12, 1983, shall be limited by the following equation or by 0.6 lbs per MMBtu, whichever is more stringent:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where

Pt = emission rate limit (lbs/MMBtu)

Q = total source heat input capacity (MMBtu/hr)

The total heat input capacity for this source is 3.375 MMBtu/hr. Therefore, the emission rate limit for each boiler established from the equation above equals:

$$Pt = \frac{1.09}{3.375^{0.26}} = 0.79 \text{ lbs/MMBtu}$$

Therefore, the most stringent PM emission limit for each boiler at this facility is 0.6 lbs/MMBtu.

### Testing Requirements

No testing requirements were included in the previous FESOP or this FESOP because the compliance methods for PM and PM10 are based on the operation of the baghouses. The compliance method for VOC emissions are based on mass balance and record keeping. The VOC emission factor for the mixing process (1.5% by weight) is from AP-42 and will be verified by the VOC input and VOC content in the final products.

### Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The following new compliance requirements were incorporated into this FESOP:

1. The baghouses associated all mixers have the additional compliance monitoring conditions as specified below:
  - (a) The Permittee shall record the total static pressure drop across each baghouse controlling each mixer, at least once per shift when the mixers are in operation. Unless operated under conditions for which the Compliance Response Plan

specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 1.0 to 2.05 inches of water or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

- (b) An inspection shall be performed within the last month of each calendar quarter of all bags controlling the mixers. In the event that bag failure has been observed:
  - (1) for multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit.
  - (2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit.

These monitoring conditions are necessary because the baghouses equipped with the mixers must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8-4 (FESOP).

All compliance requirements from previous approvals were incorporated into this FESOP. The source is also subject to the following compliance monitoring requirements:

1. The mixing process has applicable compliance monitoring conditions as specified below:

Visible emissions notations of the mixer stack exhausts shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary because the mixers must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

## Conclusion

The operation of this adhesive manufacturing plant shall be subject to the conditions of the attached FESOP (F039-15349-00030).



**Appendix A: Emissions Calculations**  
**VOC and PM Emissions**  
**From the Thirteen (13) Mixings**

**Company Name: H. B. Fuller**  
**Address City IN Zip: 2408 County Road 6 East, Elkhart, IN 46514**  
**FESOP: F039-15349-00030**  
**Reviewer: ERG/YC**  
**Date: April 9, 2002**

Mixer ID	Mixing Material	Capacity (gal)	Max. Solvent Usage (lbs/hr)	Max. Pigment Usage (lbs/hr)	*VOC Emission Factor (%)	Potential VOC Emission (tons/yr)	*PM/PM10 Emission Factor (%)	Potential PM/PM10 Emissions (ton/yr)	PM/PM10 Control Efficiency (%)	Potential to Emit of PM/PM10 (lbs/hr)	Potential to Emit of PM/PM10 (tons/yr)
M1	solvent based mastics	2500	1190.0	1500.0	1.5%	78.18	1.0%	65.70	99.0%	0.15	0.66
M2	solvent based mastics	2100	750.0	1040.0	1.5%	49.28	1.0%	45.55	99.0%	0.10	0.46
M3	solvent based mastics	2100	1072.0	1430.0	1.5%	70.43	1.0%	62.63	99.0%	0.14	0.63
M4	solvent based mastics	275	128.5	185.0	1.5%	8.44	1.0%	8.10	99.0%	0.02	0.08
M5	alumulastic	675	40.0	845.0	1.5%	2.63	1.0%	37.01	99.0%	0.08	0.37
M6	tape compound	200	0.0	400.0	1.5%	0.00	1.0%	17.52	99.0%	0.04	0.18
M7	tape compound	200	0.0	400.0	1.5%	0.00	1.0%	17.52	99.0%	0.04	0.18
M9	tape compound	160	0.0	335.0	1.5%	0.00	1.0%	14.67	99.0%	0.03	0.15
M10	tape compound	120	0.0	70.0	1.5%	0.00	1.0%	3.07	99.0%	0.01	0.03
M11	water coating	3600	0.0	43.0	1.5%	0.00	1.0%	1.88	99.0%	0.00	0.02
M12	acrylic caulk	250	0.0	230.0	1.5%	0.00	1.0%	10.07	99.0%	0.02	0.10
M20	solvent based mastics	150	70.0	150.0	1.5%	4.60	1.0%	6.57	99.0%	0.02	0.07
M21	tape compound	1000	333.3	555.5	1.5%	21.90	1.0%	24.33	99.0%	0.06	0.24
	<b>Total Emissions</b>					<b>235.5</b>		<b>314.6</b>			<b>3.1</b>

\*Emission Factors are adapted from AP42, Chapter 6.4-1- Table 6.4-1: Uncontrolled emission factors for paint and varnish manufacturing (May, 1983), and assuming all the PM emissions are equal to PM10 emissions.

## METHODOLOGY

Potential VOC (lbs/hr) = Max. Solvent Usage (lb/hr) x VOC Emission Factor (%)

Potential VOC (tons/yr) = Max. Solvent Usage (lb/hr) x VOC Emission Factor (%) x 8760 (hr/yr) \* (1 ton/2000 lbs)

Potential PM/PM10 (lbs/hr) = Max. Pigment Usage (lb/hr) x PM/PM10 Emission Factor (%)

Potential PM/PM10 (tons/yr) = Potential PM/PM10 Emissions (lbs/hr) x 8760 (hr/yr) \* (1 ton/2000 lbs)

Potential to Emit of PM/PM10 (lbs/hr) = Max. Pigment Usage (lb/hr) x PM Emission Factor (%) x (1- Control Efficiency)

Potential to Emit of PM/PM10 (tons/yr) = Potential to Emit of PM/PM10 (lbs/yr) x 8760 (hr/yr) \* (1 ton/2000 lbs)

**Appendix A: Emissions Calculations**  
**HAPs Emissions**  
**From the Thirteen (13) Mixings**

**Company Name: H. B. Fuller**  
**Address City IN Zip: 2408 County Road 6 East, Elkhart, IN 46514**  
**FESOP: F039-15349-00030**  
**Reviewer: ERG/YC**  
**Date: April 9, 2002**

Mixer ID	Mixing Material	Capacity (gal)	*VOC Emission Factor (%)	Max. Toluene Usage (lbs/hr)	Potential Toluene Emissions (tons/yr)	Max. Glycol Ether Usage (lbs/hr)	Potential Glycol Ether Emissions (ton/yr)
M1	solvent based mastics	2500	1.5%	150.0	9.86	0.0	0.00
M2	solvent based mastics	2100	1.5%	150.0	9.86	0.0	0.00
M3	solvent based mastics	2100	1.5%	172.0	11.30	0.0	0.00
M4	solvent based mastics	275	1.5%	18.0	1.18	0.0	0.00
M5	alumilastic	675	1.5%	0.0	0.00	0.0	0.00
M6	tape compound	200	1.5%	0.0	0.00	0.0	0.00
M7	tape compound	200	1.5%	0.0	0.00	0.0	0.00
M9	tape compound	160	1.5%	0.0	0.00	0.0	0.00
M10	tape compound	120	1.5%	0.0	0.00	0.0	0.00
M11	water coating	3600	1.5%	0.0	0.00	0.0	0.00
M12	acrylic caulk	250	1.5%	0.0	0.00	5.0	0.33
M20	solvent based mastics	150	1.5%	0.0	0.00	0.0	0.00
M21	tape compound	1000	1.5%	333.0	21.88	0.0	0.00
	<b>Total Emissions</b>				<b>54.1</b>		<b>0.3</b>

Emission Factors are adapted from AP42, Chapter 6.4-1- Table 6.4-1: Uncontrolled emission factors for paint and varnish manufacturing (May, 1983), and assuming all the PM emissions are equal to PM10 emissions.

**Total HAPs                      54.4 tons/yr**

**METHODOLOGY**

Potential HAP Emissions (lbs/hr) = Max. HAPs Usage (lb/hr) x VOC Emission Factor (%) x 8760 hr/yr x 1 ton/2000 lbs

**Appendix A: Emission Calculations**  
**Natural Gas Combustion**  
**(MMBtu/hr < 100)**  
**From Insignificant Combustion Units (15 units combined)**

**Company Name: H. B. Fuller**  
**Address City IN Zip: 2408 County Road 6 East, Elkhart, IN 46514**  
**FESOP: F039-15349-00030**  
**Reviewer: ERG/YC**  
**Date: January 25, 2002**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

3.375

29.6

	Pollutant					
Emission Factor in lb/MMCF	PM*	PM10*	SO2	**NO <sub>x</sub>	VOC	CO
	7.6	7.6	0.6	100	5.5	84.0
<b>Potential Emission in tons/yr</b>	<b>0.11</b>	<b>0.11</b>	<b>8.9E-03</b>	<b>1.48</b>	<b>0.08</b>	<b>1.24</b>

\*PM and PM10 emission factors are condensable and filterable PM10 combined.

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

### Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
calc

(AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton